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ABSTRACT

The purpose of this study was to examine teachers' perceptions of the direct and indirect influences that testing has on students. Subjects consisted of 12 male and 127 female kindergarten through grade 12 teachers in North Carolina--a state that mandates standardized testing. Districts may use only those test required by the state or they may use local funds to supplement the state's testing program. The teachers were surveyed concerning their perceptions of the effects of testing on their students. Surveys were conducted by 44 graduate students in two introductory educational measurement and evaluation courses. Respondents were working in 19 of the then 140 school districts in the state. Median years of teaching experience reported by respondents was 15 years. Survey data were content analyzed to summarize responses. Results of the study are consistent with past research reports indicating that teachers perceive testing as stressful for some students and motivational for others. A unique finding of this study is that teachers identified substantially more negative effects than positive effects of testing on students. In light of the currer expansion of testing programs throughout the nation, educators should be aware of potential positive and negative outcomes of their decisions prior to changing the intensity of their state testing programs. Four data tables and the Effects of Testing on Classroom Practice Survey are provided. (TJH)

Teacher Perceptions of the Effects of Testing on Students

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Abstract

The positive and negative effects of standardized testing programs on students are currently undergoing more intense scrutiny. In light of the current expansion of testing programs throughout the nation, educators should be aware of potential positive and negative outcomes of their decisions prior to changing the intensity of their state testing programs. The purpose of this study was to examine teachers' perception of the direct and indirect influence testing has on students. One hundred and thrity-nine North Carolina teachers, grades K - 12, responded to a survey that asked them to identify the effects of testing on their students. Survey data were content analyzed to summarize responses. The results of the study are consistent with past research reports that found teachers to perceive testing as a stress on some students and a motivator for others. Unique to this study is that teachers identified substantially more negative effects vs. positive effects (99 vs. 59) of testing on students.

Teacher Perceptions of the Effects of Testing on Students

The Problem

The positive and negative effects of standardized testing programs on students are currently undergoing more intense scrutiny. Much discussion has occured examining the effects of the current testing phenomena (Airasian, 1987; Bollenbacher, 1982; McCarty & Cardenas, 1986; Resnick, 1981); at least 40 states have begun minimum competency testing (Phipho, 1980). Fewer empirical studies are available that examine the effects of state-imposed testing program on students.

Kellaghan, Madaus, and Airasian (1982) investigated the effects of a classroom-based standardized testing program in Ireland that included the impact of testing on students' attitudes, expectations, and performance. Karmos and Karmos (1984) investigated the attitudes of students in grades six through nine toward standardized achievement tests and found them significantly related to the tests' importance, the use made of the tests, and the students' perception of their effort. Beck (1980) found that students view standardized testing as a useful component of the entire instructional program, although they consider test results with some skepticism. Stake (1988) reported that teachers identified tests as inappropriate stressors for some students and motivators for others from a survey of 285 teachers

in seven states. Dorr-Bremme and Herman (1986) in a national survey of elementary and secondary school principals and teachers found between 73 and 93 percent of the teachers surveyed agreeing with the statement that testing motivates students to study harder.

These studies begin to describe the positive and negative effects of standardized testing on students. More empirical evidence is needed in this area, as is uniformly needed in the study of the effects of standardized testing programs on the curriculum (Kirkland, 1971; Lazar-Morrison, Polin, Moy, & Burry, 1980; Stake, Bettridge, Metzer, & Switzer, 1987). Information from states that lead the country in the intensity of state required/mandated testing about the effects of frequent standardized achievement testing on students would minimally provide a possible-future scenario for states contemplating an increase of required testing. The purpose of this study, therefore, was to examine teachers' perceptions of the direct and indirect influence testing has on students in a state with relatively frequent testing requirements.

Methodology

Survey Instrument

The survey was developed for use in North Carolina where local school districts are required by the State to conduct a standardized testing program. Districts may use only those tests required by the state, or they may use local funds to supplement the state's testing program. For example, all school districts in

North Carolina must administer the California Achievement Test and the Test of Cognitive Skills in Grades 3, 6, and 8. The results of the testing in these three grades are used to screen students for special placements into programs such as academically gifted, Chapter I, and learning disabled. The California Achievement Test results are also used to screen students for promotion into the next grade level. Children who score below the 25th percentile in grades three, six, and eight must take a minimum competency test developed by North Carolina's State Department of Public Instruction. Those who fail to achieve a passing score on this examination must attend summer school, and the promotion policy is then determined by the local school district. Children who have already failed one grade level in the testing interval are exempt from retention.

The state also mandates competency examinations for high school graduation and course content testing in sixth grade writing, in third, sixth, and eight grade social studies and science. With plans to increase the number of high school content test in the future, the State currently requires uniform end-of-course testing in high school biology, U.S. history, algebra I and algebra II.

A school district may choose to administer additional California Achievement Tests in the remaining grades and/or adopt other testing programs. For example, one city school district has mathematics promotion standards for elementary students at various grade levels dependent on a series of locally-developed competency tests. A student must meet both state and district competency levels prior to promotion to the next grade level. This school

district also administers the California Achievement Test in grades 1, 2, 4, 5, and 7.

The survey was constructed using open-ended questions, asking teachers to identify the types of assessments used in their classrooms (i.e., state mandated, school district mandated, and teacher mandated), classroom activities and amount of time spent directly preparing students to take tests, indirect effects of testing on classroom activities, direct and indirect effect of testing on the students, strengths and weaknesses of the testing program, and the single thing they would like to see changed about the testing program. This survey instrument was pilot tested with graduate students enrolled in an introductory educational measurement and evaluation course and underwent minor modification as a result of the pilot test. A copy of the survey is appended to this paper.

For the purpose of this study, only the question addressing the effects of testing on students will be analyzed. The analysis will be based on teachers' responses to the question: In what ways do you feel that testing has directly or indirectly influenced your students? Four blank lines were provided for a teacher's response underneath the survey question.

Sample

Both the state where the study was conducted and the sample of teachers responding to the survey were selected "for convience." Fifty-one graduate students in two introductory educational measurement and evaluation course were given an opportunity to question at least two classroom teachers about the

effects of testing on classroom practice. Forty-four of the students participated and returned 139 surveys over two semesters.

Students were encouraged to select teachers with at least five years' teaching experience who were currently teaching in grades three, six, and eight. North Carolina's testing program has expanded greatly in the last five years with state required testing primarily in third, sixth, and eighth grades. As shown in Table 1, a total of 83 participating teachers work exclusively with one of the three preferred grades (60% of the sample) with another 15 teachers identifying their teaching responsibility as including one or more of the three grade levels. Slightly more than one third of the teachers (35%) surveyed hold master's degrees.

Teachers responding to the survey concurrently were working in 19 of the then 140 school districts in the state. Of the teachers responding, all participated in the state's testing program and 54% came from school districts that required testing beyond the state's guidelines. The median years' of teaching experience reported was 15.

Procedures

Prior to distribution, the survey instrument and its purpose were reviewed with data gatherers. Although initially instructed to conduct interviews with teachers, it was agreed that the survey was sufficiently self-explanatory that teachers could fill them out independently. Of the 44 data gatherers, only 6 chose to collect information by interview. A comparison of the interview data and the teacher completed survey data showed no noticeable

Insert Table 1 about here.

differences in response patterns. Surveys were distributed in two waves, six month apart, and all surveys were returned within two weeks of distribution. The average number of surveys returned was 3, and the maximum number of surveys returned by one graduate student was 14. Demographic data were directly coded and summarized. The information contained in the open ended response questions was submitted to content analysis prior to tabulating response frequencies.

Results

Direct Influences of Testing on Students

Teachers surveyed were asked how testing had directly or indirectly influenced their students. Ninety-eight teachers identified 158 direct influences that were collapsed into 13 categories with an additional 8 responses considered as categories with a frequency of one. The emerging categories were then grouped into positive and negative effects on students. In Table 2, the positive and negative direct influences of testing on students are presented.

Insert Table 2 about here.

Clearly the negative comments were appreciably more frequent that the positive one. The three most frequent negative effects of testing on students (accounting for 71% of all the negative effects) identified by teachers express concern for students' emotional well-being. Teachers appear concerned that the testing programs are having adverse effects on their students' affective academic outlook. A review of the positive effects identified indicates that the teachers responding viewed the testing program primarily as a motivator for students to learn the tested material and as a promotor of more successful test taking.

A comparison of the positive and negative cateogories is striking. The 99 negative comments were generated by 65 teachers, whereas the 59 positive comments were generated by 37 teachers. A total of 12 teachers suggested both positive and negative effects of testing on students. Interestingly, teachers appear to disagree in the perceptions. Fourteen teachers saw the testing program as promoting apathy and weariness while 22 teacher perceived it to be a motivator for students to work harder. Three teachers though that testing decreased test apprehensions while 22 felt that the testing programs increased test anxiety.

A further investigation of teachers' comments seemed warranted as an attempt to explain perceptual differences. A comparison of type of comment (positive or negative) by the intensity of the testing program (state alone or local additions) revealed that teachers who came from school districts with local testing requirements in addition to state required testing were much more likely to comment than not. Table 3 shows that 65% of

the negative comments and 84% of the positive comments were attributable to teachers from local option school districts, suggesting that the added testing intensity may contribute to teacher polarization on the issues of testing and its concommitant effect on students without any assurances as to which side of the issue a teacher may take.

Insert Table 3 about here.

Indirect Influences of Testing on Students

Forty-two teachers identified only 49 indirect influences of testing on students compared to the 158 direct effects. Twenty of these 42 teachers did not contribute to the direct effects identified. Table 4 reports the frequencies by content category created to summarize the indirect effects of testing on students teachers identified. Teachers reported student placement decisions, students' self-esteem levels and pressures on students as the three most common indirect influences of testing on students. The three areas account for almost 60% of the comments.

Insert Table 4 about here.

Conclusions

Consistent with previous research findings (Dorr-Bremme & Herman, 1980; Stake, 1988), teachers responding to this survey identified testing pressure and stress as the most common negative direct effect of testing on students and motivation of students to learn the material covered on the test as the most common positive direct effect. Unlike other studies, this survey focused entirely on teachers in a high test-intensity state with "high stakes" state-required testing beginning in third grade. The results of the study demonstrated that this group of 139 teachers reported 148 effects of testing on students; 40 more negative effects of testing on students than positive effects.

Study results further indicated that the greater the intensity of the testing program, the more vocal and polarized teachers become about the effects of testing on their students. This intensity factor could explain why previous teacher surveys assessing the effect of testing on students have measured only mild effects (Dorr-Bremme & Herman, 1980; Stake, 1988).

Fewer indirect effects of testing on students were identified by teachers surveyed in comparison to direct effects. Teachers most frequently cited decisions about student placements, in part based on test results, as an indirect effect of testing on students. Changes in students' self-esteem was the second most common indirect effect identified by teachers. Since there is an evident connection between academic placement decisions and student self-esteem these are very likely reporting interrelated effects.

Clearly, the results of this survey support the existence of mixed negative and positive effects of testing on students. The major policy issue is - should we endorse the increase in required testing throughout the country. Although more empirical evidence is certainly needed before we completely understand the effects of testing on students or how teachers' perceptions of those effects are related to actual effects, the following can be argued: If, in fact, standardized testing of students is harmful to some students, then the benefit of such testing should clearly outweigh any harm. Where is the empirical evidence that counterbalances the negative effects of testing on students identified by this study?

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Table 1.

Profile of Teachers Surveyed by Grade Level Responsibility, Highest Degree Held, and Gender

Grade	n	Highest Degree		Gender	
		B.A./B.S.	M.A./M.S	Male	Female
1	2	0	2	0	2
2	3	3	0	0	3
3	40	17	13	1	39
4	12	12	0	0	12
5	8	3	5	0	8
6	24	17	7	2	22
7	9	8	1	2	7
8	19	13	6	3	16
Multi 6-8	12	7	4	0	12
Multi K-8	3	2	1	1	2
9	3	2	1	0	3
10	0	0	0	0	0
11	0	0	0	0	0
12	1	0	1	1	0
Multi 9-12	13	7	6	3	10
TOTALS	139	91	48	12	127

Table 2.

Positive and Negative Direct Effects of Testing on Students

Response Category	Frequency
Negative Effects	
Places pressure and stress on students	30
Creates test anxiety	22
Increases incidences of & fear of failure	18
Promotes test apathy and weariness	14
Generates frustration	7
Teaches studying just for test	6
Tests that don't correlate with studies are confusing	1
Takes the fun out of learning	1
Total number of negative comments	99
Positive Effects	
Students work harder to learn tested material & do well	22
Promotes successful test taking	15
Identifies academic strengths and weaknesses	4
Helps students learn that they are accountable	4
Decreases test apprehensions	3
Helps increase attention span, develop listening skills, encourages study time	3
Provides competition, makes students grade conscious	2
Immature students learn to take school more seriously	1
Students learn to budget time and succeed	1
Testing is an excercise in self-discipline	1
Competency testing teaches students how to function in society	1
Challenges a few students making them aware of their capabilities	1
Students become more test oriented	1
Total number of positive comments	59

Table 3.

Frequency of Positive and Negative Comments by Intensity of Testing Program

	Number of Comments	Number of Teachers	Number of Teachers with Local Testing (%)
Negative Comments	99	65	42 (65%)
Positive Comments	59	45	38 (84%)

Table 4.

Indirect Effects of Testing on Students

Category	Frequency
Influences student placements	15
Affects child's self-concept	9
Pressure on teachers results in pressure on students	5
Limits creativity and spontaneity	4
Labels students	3
Defines successful and unsuccessful students	3
Helps diagnose students' needs	2
Lose learning time in untested areas	3
Curriculum is testable - skill oriented	1
Students get much instruction before a test and little in that area after a test	1
Test scores have become status symbols	1
Results can be used to predict future success or failure	1
Creates more uniformity in classroom activities and student knowledge	1
Total number of indirect influences identified	49

Effects of Testing on Classroom Practice Survey

Current Position: _____ Grade Level(s): _____

School District: _____ Sex: Female Male

Number of Years Teaching (including this year): _____

Past Teaching Responsibilities: _____

_____

_____

Highest Degree: B.A./B.S M.A./M.S./M.Ed. Ed.S. Ph.D./Ed.D

Types of Assessment Currently Used in Your Classroom:

State Mandated	School District Mandated	Teacher Mandated
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

For which, if any, of the tests listed above do you spend classroom time directly preparing students to take the test and what do you do?

Test	Activity(ies)
_____	_____
_____	_____
_____	_____
_____	_____

(Please continue on back if more room is needed for this question.)

Effects of Testing on Classroom Practice Survey

In what ways do you feel that the testing of your students indirectly influences classroom activities (e.g., textbook selection, less time spent on untested portions of the curriculum, better prepared students at the beginning of the school year, etc.)

In what ways do you feel that testing has directly or indirectly influenced your students?

What strengths do you perceive in the current testing program?

What weaknesses do you perceive in the current testing program?

If you could change one thing about the current testing program, what would it be?